ASOS PROGRAM MANAGEMENT COMMITTEE

RECORD APMC 03-2 (DRAFT)

November 4, 2003

1. CONVENED - 9:00 AM

A meeting of the ASOS Program Management Committee (APMC) was convened by Chair Douglas Hess on November 4, 2003. The meeting was in Room 4246, Silver Spring Metro Center Building 2 (SSMC-2), National Weather Service Headquarters, Silver Spring, MD.

Members participating:

Chair	-	Douglas Hess
DOC	-	John Bradley (for Rainer Dombrowsky)
	-	Lee Stang (for Frank Kelly)
DOD	-	Col. Ray Clark, USAF
	-	Tim Kimbrell, Navy (for Maj. Eric McBee)
DOT	-	Alan Feinberg (for Deborah Johnson)
	-	David Whatley
ASOS PI	-	Richard Ahlberg, Jr.
Ex. Sec.	-	Lewis Kozlosky

Advisors and/or guests included: Kevin Conaty, Bryan Moore, Jerald Dinges, Rob Ericson, William Fellows, Doug Gifford, Anthony Leonardo, David Manaranno, Rich Thomas, Tom Townsend, and Al Wissman from DOC; Paul Armbruster, Jerry Kranz, Linda Koval, and Maj. Steve Dickey from DOT; Jim Humphrey from DOD; and A. N. Ananth and Joe Bharwada from Prism Communications.

2. OPENING REMARKS AND PREVIOUS MINUTES

Mr. Hess recognized the members and alternates in attendance as indicated above.

The May 13, 2003, corrected minutes were approved as written.

3. ASOS CCB REPORT

The ASOS Configuration Control Board (ACCB) Request for Change (RC) Status Report was provided to members in their folders. No issues were raised concerning the ACCB Report.

4. NWS PRODUCT IMPROVEMENT (PI) STATUS BRIEFING

Mr. Ahlberg summarized the PI priorities for the NWS and FAA.

ACU Processor Upgrade:

Mr. Ahlberg summarized the software evolution for the Processor Upgrade. He reported 848 sites have been approved for processor deployment, and 166 sites have installed the processor to date.

Mr. Humphrey asked if the new processors are running with different software loads. Mr. Ahlberg replied that they are, and 47 sites remain to be upgraded to the latest load. The Navy sites are using V2.40 and V2.60 on the old processor, and the majority of Air Force sites are using V2.60.

Dewpoint Sensor Replacement:

The new sensor has been working well. About 200 sensors are to be ordered in FY04 and this will complete the joint FAA/NWS acquisition. Navy and Air Force are still pending acquisition of the new Dewpoint Sensor.

Ice Free Wind Sensor:

There has been a two-phased OAT. The results are satisfactory meteorologically, but there are some sensor supportability deficiencies that are being addressed.

Mr. Humphrey asked about the cost of the IFW test equipment. Mr. Ahlberg replied that the verifier costs less than $400, and the solar noon alignment tool costs about $160.

All Weather Precipitation Accumulation Gauge (AWPAG):

Test results have been satisfactory. The Mobile, AL, site had problems with tree frog intrusion, which resulted in reporting of erroneous data. Various preventive measures are being investigated.

Mr. Ahlberg reported that the NWS has a requirement that all 255 Local Climatological Data (LCD) sites have the same gauge. The FAA has ranked the AWPAG as priority 7, but it is presently unfunded. The NWS has decided to fund AWPAG at the 20 FAA-sponsored LCD sites.

The continuing resolution may create acquisition delays due to lack of funding.

Enhanced Precipitation Identifier:

Contracts for COTS equipment and development were awarded to two companies this summer. Testing is continuing. A meteorological particle sensor has been obtained to be used as a reference.

Ceilometer Replacement:

Mr. Ahlberg stated that a requirement for increased altitude capability of 40,000ft has been obtained from the climate community. This capability is needed at about 1/4 of the ASOS sites. The rest of the sites can use 25,000ft ceilometers. The new requirement will be incorporated into the SOW.

Funding for the COTS evaluation of this sensor is available this fiscal year. Navy and Air Force funding is to be determined.

Processor Strategic Efforts:

The Government awarded 4 tasks in March, consisting of:

o Lint Warning Study;
o Self Test Redesign Study and follow-on proposals;
o Proper Hardware Access; and
o ACU/DCP Communications Time Delay Removal.

A fifth study, ASOS II (Software) Redesign, was awarded in August. Mr. Ahlberg introduced Mr. Ananth of Prism Communications to present the status of the study. Mr. Ananth summarized that ASOS II is not a replacement for ASOS, but an effort to extend the life of ASOS by staving

off software obsolescence. ASOS II efforts are defined such that they may be phased in over a period of time.

ASOS II Study efforts include:
- o Improvement of ACU-DCP Communications Link;
- o Redesigning of the DCP PROM;
- o Developing a Full-Fledged ADAS Simulator;
- o Redesigning of Internal ACU Tasking;
- o Removal of ACU and DCP Dead Code;
- o Optimizing Use of Battery Backed RAM;
- o Gathering Metrics to Improve Software Quality Assurance;
- o Implementing a New Embedded Kernel (to replace pSOS); and
- o Redesigning of Redundancy Scheme to address more Failure Modes.

The ASOS II Redesign Study is to be completed by November 30.

5. NWS-FAA Regional ASOS Coordination

Mr. Townsend of NWS Central Region cited several examples illustrating the lack of NWS-FAA Regional coordination. This lack of coordination has resulted problems with implementing field changes.

Mr. Townsend recommended a national NWS-FAA conference to improve communications and understanding of roles and responsibilities. The conference may also include Navy and Air Force participation. Col. Clark stated that the Air Force would like to participate, and that the proposed location of Kansas City is helpful for travel planning. Mr. Kimbrell said the Navy has similar issues, and its participation would be beneficial. Mr. Whatley said the workshop is very much needed, and endorsed moving forward with the planning. The APMC agreed to go forward with the conference.

The following Action was assigned:

Each Agency is to provide representatives to Mr. Kozlosky who will work with Mr. Townsend to establish a planning committee for the workshop. Mr. Townsend will serve as the Lead for coordinating the logistics.

6. USN/USMC TO NWS/FAA ASOS NORMALIZATION

Mr. Tim Kimbrell summarized that Navy systems have diverged from the NWS/FAA configurations. He added that funding will be provided to upgrade Navy ASOSs with NWS Product Improvement technology. The new processor upgrade is the first item to be installed into Navy systems.

The Determinations and Findings (D&F) document is in draft, as well as a Memorandum of Agreement (MOA) to allow NWS to accept funding from the Navy for ASOS upgrades and support.

Funding will be available for the Navy to purchase Processors, Dewpoint sensors, and Ice-Free Wind sensors.

The FY04 tasking includes:

o A Test Bed for old and new configurations parallel testing;
o Configuration Documentation;
o ECPs (USN/USMC equivalent to RCs);
o APL Verification; and
o Commencement of Procurement and Installation.

A few Navy systems have been informally turned over to NWS for maintenance, but the systems are not included in the Product Improvement initiatives.

The following Action was assigned:

Kimbrell: Provide a list of Navy ASOS Systems that were relinquished to non-Government parties.

7. CONTINUING ASOS PROGRAM FUNDING BY THE FAA

Mr. Hess initiated discussion on this topic. Mr. Feinberg summarized that O&M funding is lacking, and the FAA is trying to identify systems to shut down. There is a $2.5M shortfall in O&M funding, and FAA expects it will be a continuing shortfall, not just this fiscal year.
Mr. Ahlberg pointed out that a list needs to be completed and prioritized as soon as possible due to the continued lapsing of the fiscal year. Mr. Feinberg stated that a list should be ready in about two weeks.

Mr. Ahlberg pointed out that FAA PI funding needs to be more timely and asked if partial funding can be provided earlier. Mr. Kranz said funds may be obtained from the Continuing Resolution.

8. ASOS SOFTWARE WORKING GROUP (ASWG) ACTIVITIES

Mr. Bradley presented the ASWG report. Three loads have been prioritized for development. Mr. Thomas pointed out that V2.8 may have to be coded in three builds due to limited funding.

9. INTERNET CONNECTIVITY

Mr. Wissman summarized that Factory Acceptance Tests were successful. Further scheduling and system testing by the NWS is planned for early next year, pending completion of higher-priority Product Improvement tests.

Mr. Hess stated that The Weather Channel wants access to the interface. Mr. Wissman added that access could be provided once per hour.

Mr. Hess asked if funding is available. Mr. Wissman replied that the ASOS portion of the project is fully funded. External platform access funding is to be determined. Even though the ASOS portion is funded, the cost to fully implement is estimated to be $1.8M.

Mr. Wissman emphasized that this project will result in a net savings due to the automation of software O&M activities.

The web address for more information on this project is: ftp://140.90.24.7/WeatherObservations/index.html.

10. ASOS OPERATIONS

Mr. Wissman reported the status of ASOS monthly operations and maintenance. System Availability, Mean Time Between Failure, Mean Time Sensor Recovery, Maintenance Restoration statistics, Trouble Ticket data, and Percentage of Missed Observations were reported.

The overall System Availability is greater than 98%. AOMC trouble tickets are slightly higher than previous years due to system aging. Mr. Ahlberg added that Product Improvement deployment should improve overall performance.

11. OLD BUSINESS

Mr. Kozlosky summarized the status of Action Items:

APMC 02-2.1: Ahlberg - Provide information on the Processor Upgrade contract so the Navy can determine a participation strategy. STATUS: NEW 7/16/02; PENDING Navy Decision 11/14/02; PENDING Navy Funding Transfer 5/13/03; COMPLETE 11/4/03

APMC 02-3.1: Dombrowsky - Verify Operational Requirements for higher altitude-capable ceilometers with the Climate Community. NEW 11/14/02; PENDING Collection of Additional Information 5/13/03; There is a requirement for 40K Ceilometers at about 250 Sites. COMPLETE 11/4/03

APMC 02-3.2A Gifford - Provide FMH-1 Algorithm updates as software releases occur. REVISION (of APMC 02-3.2) 5/13/03; PENDING 11/4/03

APMC 03-1.1: Whatley/Johnson - Provide a decision on what options to implement in order to meet available FY03 and future FAA funding shortfalls. Due: 5/28/03; PENDING 11/4/03

APMC 03-2.1 Kozlosky/Townsend - Each Agency is to provide representatives to Mr. Kozlosky who will work with Mr. Townsend to establish a planning committee for the workshop. Mr. Townsend will serve as the Lead for coordinating the logistics. NEW 11/4/03

APMC 03-2.2 Kimbrell - Provide a list of Navy ASOS Systems that were relinquished to non-Government parties. NEW 11/4/03

12. NEXT MEETING

The proposed date for the next APMC is May 11, 2004. Time and location: 9:00 to 1:00, Room 4246 in Building SSMC2, National Weather Service Headquarters, Silver Spring, MD. (This date will be finalized once the NEXRAD PMC sets its spring 2004 meeting date.)

13. EXECUTIVE SESSION

The Chair offered members the opportunity to convene an Executive Session. The committee members unanimously declined.

14. ADJOURN - The APMC adjourned at 12:02 p.m.